

List of Publications by Ferenc Gécseg

Books, Book Chapter, Editing

1. *Algebraic Theory of Automata*, Akadémiai Kiadó, Budapest, 1972 (with I. Peák).
2. *Tree Automata*, Akadémiai Kiadó, Budapest, 1984 (with M. Steinby).
3. *Products of Automata*, Springer-Verlag, Berlin–Heidelberg–New York–Tokyo, 1986.
4. *Fundamentals of Computation Theory*, Proceedings of the 1981 International FCT Conference, Szeged, Hungary, Springer Lecture Notes in Computer Science, Volume 117 (Editor).
5. *Fundamentals of Computation Theory*, Proceedings of the 1989 International FCT Conference, Szeged, Hungary, Springer Lecture Notes in Computer Science, Volume 380 (Editor with J. Csirik and J. Demetrovics).
6. *Automata, Languages and Programming*, 22nd International Colloquium, ICALP95, Szeged, Hungary, July 1995, Proceedings, Springer Lecture Notes in Computer Science (Editor with Z. Fülöp).
7. Tree languages, in: *Handbook of Formal Languages*, vol. 3, Springer-Verlag, Berlin–Heidelberg–New York–Tokyo, 1996, 1-69 (with M. Steinby).

Papers

1. Schreier extensions of multi-operator Ω -groups (in Russian), *Acta Sci. Math.*, **23** (1962), 58-63.
2. On some classes of semimoduls and moduls (in Russian), *Acta Sci. Math.*, **24** (1963), 165-172.
3. On products of ordered automata I (in Russian), *Acta Sci. Math.*, **24** (1963), 244-250.
4. On products of ordered automata II (in Russian), *Acta Sci. Math.*, **25** (1964), 124-128.

5. On the mathematical theory of automata (in Hungarian), *Year Book of MTESZ Szeged*, 1964, 45-63 (with I. Peák).
6. Automata with isomorphic semigroups (in Russian), *Acta Sci. Math.*, **26** (1965), 43-47 (with I. Peák).
7. On loop-free compositions of automata (in Russian), *Acta Sci. Math.*, **26** (1965), 264-272.
8. On the groups of one-to-one mappings defined by finite automata (in Russian), *Kibernetika (Kiev)*, 1965 N^o1, 37.
9. On the groups of automaton permutations (in Russian), *Kibernetika (Kiev)*, 1965 N^o5, 14-17 (with B. Csákány).
10. Algebraic theory of automata (in Hungarian), *Mat. Lapok*, **17** (1966), 77-134 (with I. Peák).
11. On R-products of automata I, *Studia Sci. Math. Hungar.*, **1** (1966), 437-448.
12. On R-products of automata II, *Studia Sci. Math. Hungar.*, **1** (1966), 443-447.
13. On R-products of automata III, *Studia Sci. Math. Hungar.*, **2** (1967), 163-166.
14. On the family of automaton mappings (in Russian), *Acta Sci. Math.*, **28** (1967), 39-54.
15. On many-tact automata (in Russian), *Acta Sci. Math.*, **28** (1967), 55-63.
16. Complete systems of automata, *Proceedings of the 2nd Czechoslovak Conference on Automata Theory*, Brno, 1968, 59-62.
17. Metrically complete systems of automata (in Russian), *Kibernetika (Kiev)*, 1968 N^o3, 96-101.
18. On complete systems of automata, *Acta Sci. Math.*, **30** (1969), 295-300.
19. On certain classes of Σ -structures, *Acta Sci. Math.*, **31** (1970), 191-195.
20. On equational classes of unoids, *Acta Sci. Math.*, **34** (1973), 99-101 (with S. Székely).
21. Model theoretical methods in the theory of automata, *Proceedings of the Symposium on Mathematical Foundations of Computer Science*, High Tatras, 1973, 57-63.
22. Fundamentals of automata theory (in Hungarian), *Természet Világa*, **104** (1973), 232-238.
23. On subdirect representation of finite commutative unoids, *Acta Sci. Math.*, **36** (1974), 33-38.

24. Composition of automata, *Proceedings of the 2nd Colloquium on Automata, Languages and Programming*, Saarbrücken, 1974, Springer Lecture Notes in Computer Science, Volume 14, 351-363.
25. On loop-free composition of commutative automata, *Proceedings of the Symposium on Discrete Systems*, Riga, 1974, 128-137.
26. Isomorphic representation of automata, *Proceedings of the 4th Symposium on Mathematical Foundations of Computer Science*, Marianske Lazne, 1975, Springer Lecture Notes in Computer Science, Volume 32, 226-230.
27. Representation of automaton mappings in finite length, *Acta Cybernet.*, **2** (1976), 285-289.
28. On products of abstract automata, *Acta Sci. Math.*, **38** (1976), 21-43.
29. On representation of trees and context-free languages by tree automata, *Found. Control Engrg.*, **1** (1976), 161-168 (with Gy. Horváth).
30. Universal algebras and tree automata, *Fundamentals of Computation Theory*, Proc. 1977 International FCT Conference, Poznan-Kornik, Springer Lecture Notes in Computer Science, Volume 53, 98-112.
31. Algebra and logic in theoretical computer science, *Mathematical Foundations of Computer Science*, Proc. 6th Symp., Tatranská Lomnica 1977, Springer Lecture Notes in Computer Science, Volume 54, 78-92 (with P. Tóth).
32. Minimal ascending tree automata, *Acta Cybernet.*, **4** (1978), 37-44 (with M. Steinby).
33. Algebraic theory of tree automata I (in Hungarian), *Mat. Lapok*, **26** (1975), 169-207 (with M. Steinby).
34. Algebraic theory of tree automata II (in Hungarian), *Mat. Lapok*, **27** (1976-1979), 283-336 (with M. Steinby).
35. On the periodic sum of finite automata, *Found. Control Engrg.*, **5** (1980), 229-231 (with B. Imreh).
36. Tree transformations preserving recognizability, in: *Finite Algebra and Multiple-Valued Logic*, Szeged, 1979, Coll. Math. Soc. J. Bolyai, Volume 28, North-Holland P.C., 1981, 251-273.
37. On complete systems of tree automata, *Conference on System Theoretical Aspects in Computer Science*, Salgótarján, 1982, 103-111.
38. On a representation of deterministic frontier-to-root tree transformations, *Acta Sci. Math.*, **45** (1983), 177-187.
39. On a representation of deterministic uniform root-to-frontier tree transformations, *Acta Cybernet.*, **6** (1983), 173-180.

40. General products and equational classes of automata, *Acta Cybernet.*, **6** (1983), 281-284 (with Z. Ésik).
41. Products of automata, *Proceedings of the Summer School on Applications of Mathematics in Techniques*, Varna, 1984. 5-14.
42. Finite representations and infinite products, *Papers on Automata Theory*, 1984-2, 55-63.
43. Metric representations by ν_i -products, *Acta Cybernet.*, **7** (1985), 203-209.
44. On ν_i -products of commutative automata, *Acta Cybernet.*, **7** (1985), 55-59.
45. Metric equivalence of tree automata, *Acta Sci. Math.*, **48** (1985), 163-171.
46. Type-independent equational classes and metric equivalence of tree automata, *Fund. Inform.*, **9** (1986), 205-216 (with Z. Ésik).
47. On α_i -products of automata. Homomorphic representation, in: *Algebra, Combinatorics and Logic in Computer Science*, Győr, 1983, Coll. Math. Soc. J. Bolyai, Volume 42, North-Holland P.C., 1986, 403-421.
48. Homomorphic realization of automata with composition, *Proc. Symp. on Mathematical Foundations of Computer Science*, Bratislava, 1986, Springer Lecture Notes in Computer Science, Volume 233, 299-307 (with P. Dömösi, Z. Ésik, and J. Virág).
49. On α_0 -products and α_2 -products, *Theoret. Comput. Sci.*, **48** (1986) 1-8 (with Z. Ésik).
50. On metric equivalence of ν_i -products, *Acta Cybernet.*, **8** (1987), 129-134 (with B. Imreh).
51. On α_i -products of tree automata, *Acta Cybernet.*, **8** (1987), 135-141 (with B. Imreh).
52. On a representation of tree automata, *Theoret. Comput. Sci.*, **53** (1987), 243-255 (with Z. Ésik).
53. A comparison of α_i -products and ν_i -products, *Found. Control Engrg.*, **12** (1987), 3-9 (with B. Imreh).
54. Automata over algebras with dimension, *Proceedings of the East European Category Seminar*, Predele, 1987, 11 (with H. Jürgensen).
55. Characterizations of locally transitive semiautomata, *Papers on Automata Theory*, 1987-2, 1-8 (with G. Thierrin).
56. On a special class of tree automata, *2nd Conf. on Automata, Languages and Programming Systems*, 1988. 141-152 (with B. Imreh).

57. The role of theory in computer science, *EATCS Bulletin*, Number 30, 1988, 295-297.
58. A decidability result for homomorphic representation of automata by α_0 -products, *Acta Math. Hungar.*, **53** (1-2) (1989) 205-212 (with Z. Ésik).
59. On star products of automata, *Acta Cybernet.*, **9** (1989), 167-172 (with B. Imreh).
60. Simulation by ν_1^* -products of automata, *Publ. Math.*, **36** (1989), 51-56 (with P. Dömösi).
61. Automata represented by products of soliton automata, *Theoret. Comput. Sci.*, **74** (1990), 163-181 (with H. Jürgensen).
62. On $\alpha_0 - \nu_1$ -products of automata, *Theoret. Comput. Sci.*, **80** (1991), 35-51 (with H. Jürgensen).
63. Simulation and representation by ν_i^* -products of automata, *Publ. Math.*, **40** (1992), 75-83 (with P. Dömösi).
64. A note on isomorphically complete systems, *Discrete Appl. Math.*, **36** (1992), 307-311 (with B. Imreh).
65. Algebras with dimension, *Algebra Universalis*, **30** (1993), 422-446 (with H. Jürgensen).
66. On finite isomorphically complete systems of tree automata, *Acta Sci. Math.*, **57** (1993), 497-502 (with B. Imreh).
67. On homomorphic representations by products of tree automata, *Results and Trends in Theoretical Computer Science*, Proc. Symp., Graz 1994, Springer Lecture Notes in Computer Science, Volume 812, 131-139.
68. On completeness of nondeterministic automata, *Acta Math. Hungar.*, **68** (1995), 151-159 (with B. Imreh).
69. On the cube-product of nondeterministic automata, *Acta Sci. Math.*, **60** (1995), 321-327 (with B. Imreh).
70. On two classes of formal languages (in Hungarian), *Polygon*, **5** 1995, 1-13.
71. Dependence in algebras, *Fund. Inform.*, **25** (1996), 247-256 (with H. Jürgensen).
72. On complete sets of tree automata, Proceedings of the 3rd International Conference *Developments in Language Theory*, Thessaloniki, July 20-23, 1997, 37-47 (with B. Imreh).
73. On the existence of finite isomorphically complete systems, *J. Aut. Lang. and Comb.*, to appear (with B. Imreh and A. Pluhár).

74. On quasi-products of tree automata, *Discrete Appl. Math.*, (submitted for publication).
75. On some classes of tree automata and tree languages, *Ann. Acad. Sci. Fenn. Math.*, (submitted for publication).